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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,231

09/18/2006

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740709-565

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05/22/2009

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EXAMINER

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ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

05/22/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-11, drawn to an electrolytic solution comprising a tert-alkylbenzene compound and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms.

Group II, claim(s) 12, drawn to a method of preparing pure tert-alkylbenzene compound.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Invention I claims an electrolyte solution and Invention II claims a method for making a pure tert-alkylbenzene compound.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

A) a tert-alkylbenzene compound (a tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is sec-butylbenzene and/or isopropylbenzene.

B) a tert-alkylbenzene compound (a tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is isopropylbenzene, 1,2-dimethylpropylbenzene, 1,2-dimethylindan, 1,3—dimethylindan, and/or 1-methyltetrahydronaphthalene.

C) a tert-alkylbenzene compound (a 1,3-di-tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-butyl-3-isopropylbenzene.

D) a tert-alkylbenzene compound (a 1, 4-di-tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-butyl-4-isopropylbenzene.

E) a tert-alkylbenzene compound (a 4-fluoro-tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 4-fluoro-isopropylbenzene and/or 4-fluoro-sec-butylbenzene.

F) a tert-alkylbenzene compound (a 4-tert-butylbiphenyl) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 4-sec-butylbiphenyl.

G) a tert-alkylbenzene compound (a 1,3-di-tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-pentyl-3-isopropylbenzene.

H) a tert-alkylbenzene compound (a 1, 4-di-tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-pentyl-4- isopropylbenzene.

I) a tert-alkylbenzene compound (a 1-tert-butyl-4-tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-butyl-4-isopropylbenzene.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The claims are deemed to correspond to the species listed above in the following manner:

Please pick one claim from claims 2-10 to examine.

Claim 2: a tert-alkylbenzene compound (a tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is sec-butylbenzene and/or isopropylbenzene.

Claim 3: a tert-alkylbenzene compound (a tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is isopropylbenzene, 1,2-dimethylpropylbenzene, 1,2-dimethylindan, 1,3—dimethylindan, and/or 1-methyltetrahydronaphthalene.

Claim 4: a tert-alkylbenzene compound (a 1,3-di-tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-butyl-3-isopropylbenzene.

Claim 5: a tert-alkylbenzene compound (a 1, 4-di-tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-butyl-4-isopropylbenzene.

Claim 6: a tert-alkylbenzene compound (a 4-fluoro-tert-butylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 4-fluoro-isopropylbenzene and/or 4-fluoro-sec-butylbenzene.

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Claim 7: a tert-alkylbenzene compound (a 4-tert-butylbiphenyl) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 4-sec-butylbiphenyl.

Claim 8: a tert-alkylbenzene compound (a 1,3-di-tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-pentyl-3-isopropylbenzene.

Claim 9: a tert-alkylbenzene compound (a 1, 4-di-tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-pentyl-4-isopropylbenzene.

Claim 10: a tert-alkylbenzene compound (a 1-tert-butyl-4-tert-pentylbenzene) and a benzene compound having a benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom is 1-tert-butyl-4-isopropylbenzene.

The following claim(s) are generic: claims 1 and 11.

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The tert-alkylbenzene compounds are each different as well as the benzene ring substituted with a hydrocarbon group having 1-4 carbon atoms via at least one tertiary carbon atom.

6. A telephone call was not made due to the complexity to request an oral election to the above restriction requirement, therefore did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the

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requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Laura S. Weiner/ whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura S Weiner/  
Primary Examiner  
Art Unit 1795

May 21, 2009